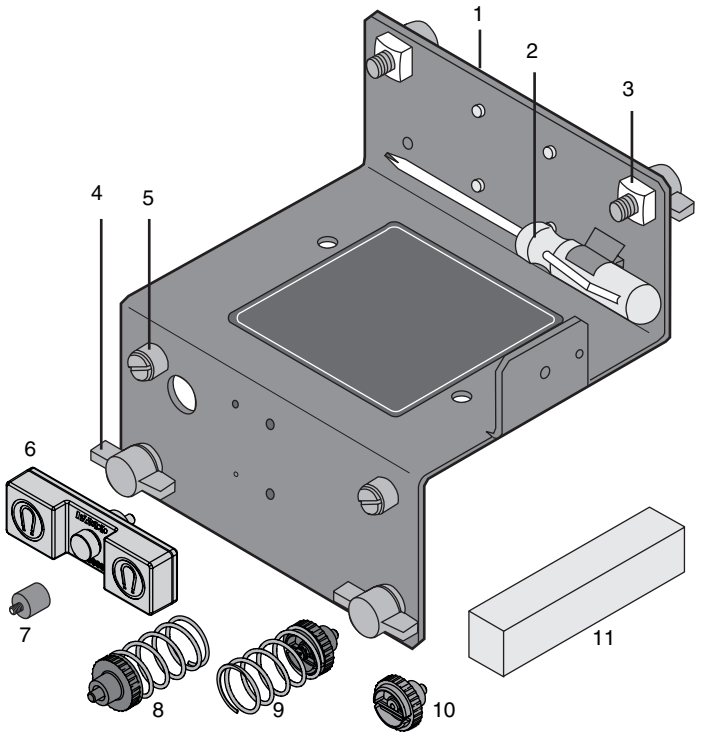
Force Accessory Bracket

CI-6545



Included Equipment	Replacement Parts
1. Bracket	CI-6545
2. Screwdriver	855-005
3. Square Nuts (4 pieces)	ME-9823 (IDS Spares Kit)
4. T-screws for mounting on track (4 pieces)	
5. Thumb screws for attaching force sensor (2 pieces)	
6. Magnetic Bumper	ME-9885A (set of 2)
7. Rubber Bumper	CI-6463 (Force Sensor Spares Kit)
8. Light Spring Bumper	ME-9884 (Bumper Accessory Set)
9. Heavy Spring Bumper	
10. Clay Holder	
11. Clay	

Introduction

Use the CI-6545 Force Accessory Bracket to mount a force sensor on a PASCO track. The included bumpers can be attached to the force sensor or directly to the bracket for collisions with a cart.

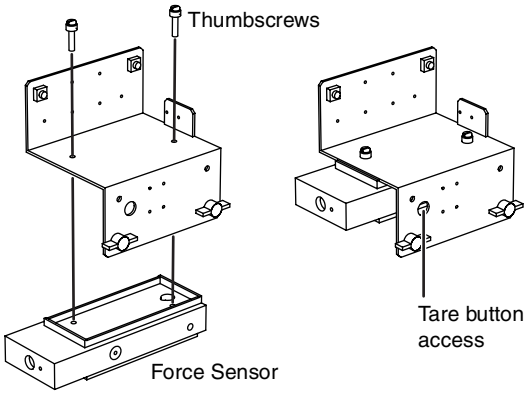


Figure 1: Large force sensor attachment

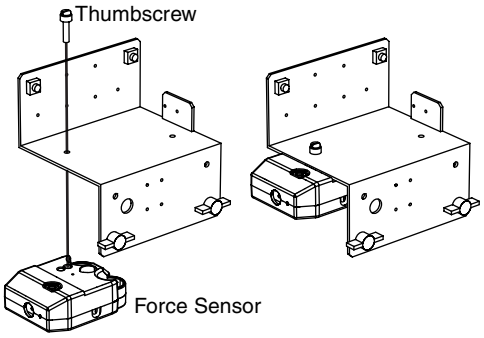


Figure 2: Small force sensor attachment

Recommended Equipment

The Bracket is designed for use with PASCO dynamics tracks and all types of PASCO carts and force sensors. The table below is a partial list of compatible equipment.

Force Sensors	**Part Number**
PASPORT Force Sensor	PS-2104
ScienceWorkshop Force Sensor	CI-6537
ScienceWorkshop Economy Force Sensor	CI-6746
Dynamics Systems	
1.2 m PAScar Dynamics System	ME-6955
2.2 m PAScar Dynamics System	ME-6956
1.2 m Classic Dynamics System	ME-9429B
2.2 m Classic Dynamics System	ME-9452A
Carts	
PAScars	ME-6950
GOcar	ME-6951
Plunger Cart	ME-9430
Collision Cart	ME-9454

Attaching a Force Sensor

Attach a large-format force sensor (such as CI-6537) with two thumbscrews (included with the bracket) as illustrated in Figure 1.

To attach a small-format force sensor (such as PS-2104 and CI-6746), use one thumbscrew as illustrated in Figure 2. On the sensor, the thumbscrew goes into the hole labeled “IDS Bracket.”

Attaching the Bracket to a Track

The bracket can be fastened to the T-slot on either side of a PASCO track. Either side of the bracket can be attached to the IDS track. When the bracket’s label is faces up (Figure 3a), the force sensor is level with a cart on the track. When the label faces down (Figure 3b), the sensor is level with a second force sensor mounted on a cart.

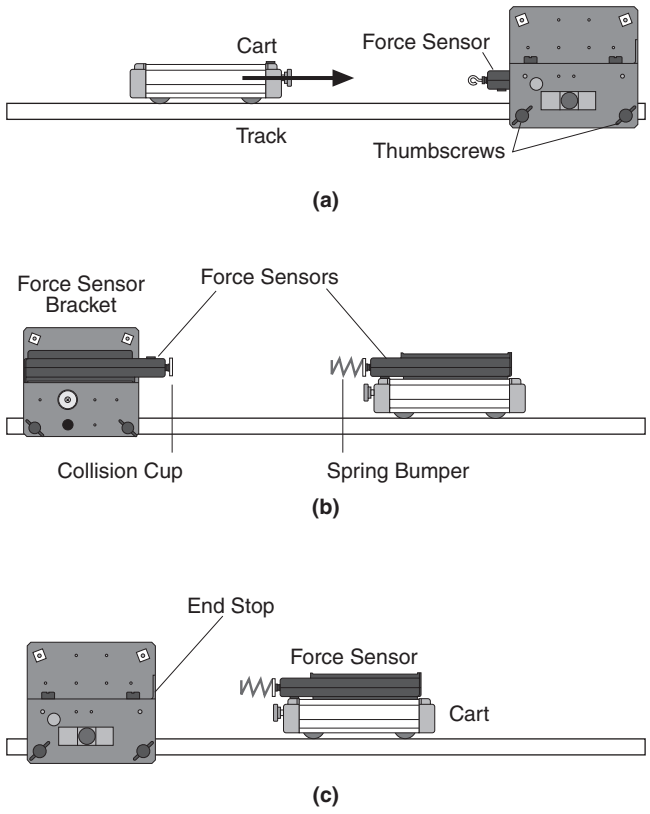


Figure 3: Track attachment options

You can also use the end stop on the bracket (Figure 3c). Depending on how the bracket is mounted, the end stop is either level with a cart or with a force sensor mounted on a cart.

To mount the bracket on the track, loosen (but do not remove) the T-screws. Line up the square nuts with the opening of the T-slot on the end of the track. Slide the square nuts into the T-slot. Position the bracket along the track. Tighten the T-screws.

Using the Collision Bumpers

To use a collision bumper, unscrew it from the storage hole and attach it to the end of the force sensor in place of the detachable hook, or attach it to the threaded hole in the bracket’s end stop.

Spring Bumpers The two spring bumpers can be used for partially elastic collisions.

Rubber Bumper The rubber bumper will dampen a collision. For example, if the force sensor is mounted on the bracket, and the rubber bumper is attached to the force sensor, a cart that collides with the rubber bumper will rebound with less speed.

Collision Cup The collision cup can be filled with a small quantity of clay (included). If the clay is formed into a cone shape, the hook on the front of the force sensor will stick to the clay for an inelastic collision.

The collision cup can also be used without the clay to collide with a spring bumper (Figure 3b).

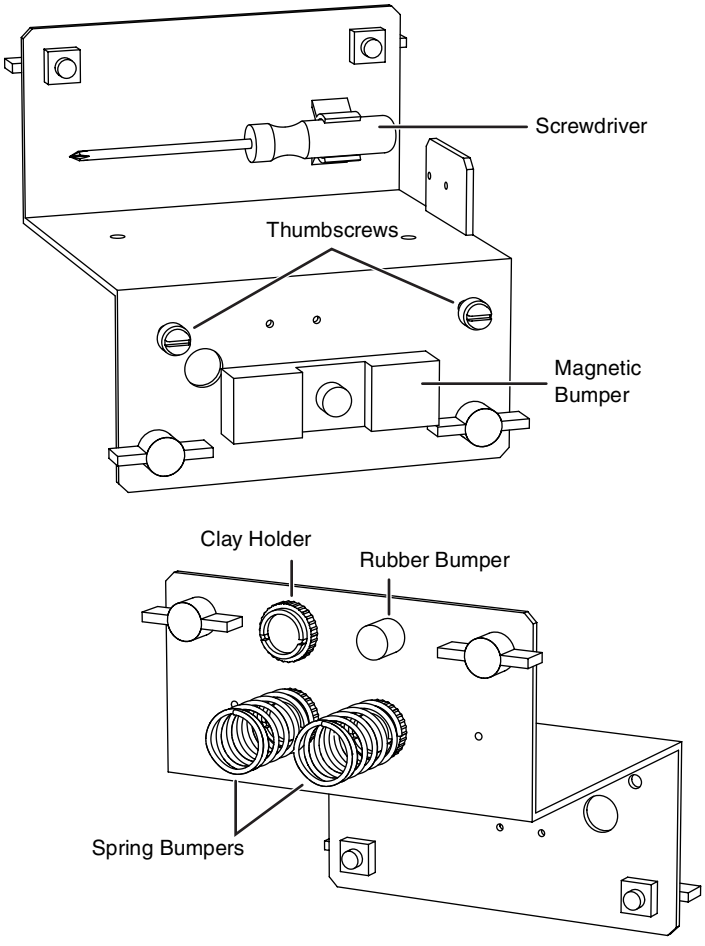
Magnetic Bumper The magnetic bumper can be used for elastic collisions. For example, if the force sensor is mounted on the bracket in the low position, and the magnetic bumper is attached to the force sensor, the bumper will repel a dynamics cart that has magnets in its end cap.

The magnetic bumper has a small pin next to the screw. This pin fits into the small hole next to the threaded hole on the end stop of the bracket or on the end of the force sensor. The pin keeps the bumper from rotating during collisions.

Screwdriver Use the screwdriver to attach a large-format force sensor (such as CI-6537) to a cart.

Parts Storage

When not in use, the various parts can be attached to the bracket as illustrated.



Technical Support

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Limited Warranty For a description of the product warranty, see the PASCO catalog.

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